Application No. 10/721,526

Filed: November 25, 2003 Group Art Unit: 3763

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**IN THE CLAIMS:** 

Applicants respectfully request amendment of Claims 1, 8, 23, 25, 27, and 29 as follows:

1. (Currently Amended) A medical needle shield apparatus comprising:

a needle hub having an outer needle cannula extending therefrom to a distal end, an inner

needle being disposed for slidable movement with the outer needle cannula; and

at least one shield being extensible from a retracted position to an extended position to

enclose a distal end of the inner needle,

the shield including a binding member disposed within the shield and comprising

defining binding surfaces that define form an aperture configured for slidable receipt of the inner

needle between the retracted position and the extended position,

the binding member further comprising a needle communicating surface extending

therefrom such that the needle communicating surface is engageable with the inner needle to

prevent inclination of the binding member while the needle communicating surface is engaged

with the inner needle,

the binding member further comprising including at least one drag inducing member such

that the at least one drag inducing member engages the inner needle during slidable receipt of the

inner needle to create a drag force with the inner needle, the drag force and shield facilitating

inclination rotation of the binding member relative to a longitudinal axis of the inner needle once

the needle communicating surface extends beyond the distal end of the inner needle such that the

binding surfaces engage the inner needle to prevent slidable movement of the inner needle in the

extended position of the shield,

the binding member further including a needle communicating surface extending

therefrom such that the needle communicating surface is engageable with the inner-needle to

prevent rotation of the binding member,

a retainer for releasable engagement with the needle hub, and

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the binding member further <u>comprising</u> including a binding member reset surface aligned with a hub reset surface.

2. (Original) A medical needle shield apparatus as recited in claim 1, wherein the at

least one drag inducing member defines a cavity that is substantially aligned with the aperture,

the cavity being configured for slidable receipt of the needle to create the drag force with the

needle.

3. (Original) A medical needle shield apparatus as recited in claim 1, wherein the

binding member includes a substantially planar aperture plate that includes the binding surfaces

that form the aperture.

4. (Original) A medical needle shield apparatus as recited in claim 3, wherein the at

least one drag inducing member includes a pair of arms extending from the aperture plate.

5. (Original) A medical needle shield apparatus as recited in claim 3, wherein the

arm includes a deflectable member.

6. (Original) A medical needle shield apparatus as recited in claim 1, wherein the

binding member is rotatable, relative to a longitudinal axis of the inner needle, between a non-

binding orientation whereby the inner needle is slidable relative to the binding member and a

binding orientation whereby the binding surfaces engage the inner needle to prevent slidable

movement of the inner needle in the extended position of the at least one shield.

7. (Original) A medical needle shield apparatus as recited in claim 1, wherein the

shield includes a housing that defines at least one blocking member extending from an interior

surface thereof, the at least one blocking member being engageable with the binding member for

urging the binding member to a binding orientation.

8. (Currently Amended) A medical needle shield apparatus as recited in claim 3,

wherein the shield includes a housing that defines at least one blocking member extending from

an interior surface thereof, the aperture plate being axially movable for engagement with the at

least one blocking member that causes inclination rotation of the binding member to a binding

orientation.

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9. (Original) A medical needle shield apparatus as recited in claim 1, wherein the at

least one shield is supported for relative rotational movement by at least one bearing.

10. (Original) A medical needle shield apparatus as recited in claim 1, wherein the

inner needle is attached to a handle for manipulation thereof.

11. (Original) A medical needle shield apparatus as recited in claim 1, wherein the

needle hub is releasably mountable with a housing of the at least one shield.

12. (Original) A medical needle shield apparatus as recited in claim 1, wherein the

needle hub defines a hub slot that is configured to receive the retainer of the binding member.

13. (Original) A medical needle shield apparatus as recited in claim 1, wherein the

binding member includes at least one outwardly arcuate arm that extends to the needle

communicating surface.

14. (Original) A medical needle shield apparatus as recited in claim 1, further

comprising a plurality of shields.

15. (Original) A medical needle shield apparatus as recited in claim 1, wherein said

binding member reset surface comprises the distal facing surface of said retainer.

16. (Original) A medical needle shield apparatus as recited in claim 1, wherein said

hub reset surface is configured to deflect said binding member reset surface to facilitate rotation

of the binding member relative to said longitudinal axis such that said binding surface disengages

the inner needle.

17. (Original) A medical needle shield according to claim 1, wherein said medical

needle is adapted for bone biopsy.

18. (Original) A medical needle shield according to claim 1, wherein said medical

needle is adapted for catheter introduction to a patient.

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19. (Original) A medical needle shield apparatus as recited in claim 1, wherein said

hub reset surface is separate from said hub and urged by a spring toward said binding member

reset surface.

20. (Original) A medical needle shield apparatus of claim 19, further comprising a

luer male taper configured with said hub.

21. (Original) A medical needle shield according to claim 1, wherein said medical

needle operates in communication with a port access device.

22. (Original) A medical needle shield according to claim 1, further comprising a

protective needle sheath member.

23. (Currently Amended) A medical needle shield apparatus comprising:

a needle hub having an outer needle cannula extending therefrom, an inner needle being

disposed for slidable movement with the outer needle cannula; and

a shield being extensible from a retracted position to an extended position to enclose a

distal end of the outer needle cannula,

the shield including a binding member disposed within the shield and comprising

defining binding surfaces that define form an aperture configured for slidable receipt of the outer

needle cannula between the retracted position and the extended position,

the binding member further comprising a needle communicating surface extending

therefrom such that the needle communicating surface is engageable with the outer needle

cannula to prevent inclination of the binding member while the needle communicating surface is

engaged with the outer needle, and

the binding member <u>further comprising</u> including at least one drag inducing member such

that the at least one drag inducing member engages the outer needle cannula during slidable

receipt of the outer needle cannula to create a drag force with the outer needle cannula, the drag

force and shield facilitating inclination rotation of the binding member relative to a longitudinal

axis of the outer needle cannula once the needle communicating surface extends beyond the

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distal end of the outer needle such that the binding surfaces engage the outer needle cannula to

prevent slidable movement of the outer needle cannula in the extended position of the shield.

and

the binding member further including a needle communicating surface extending

therefrom such that the needle communicating surface is engageable with the outer needle

cannula to prevent rotation of the binding member.

24. (Original) A medical needle shield apparatus as recited in claim 23, wherein the

binding member is rotatable, relative to a longitudinal axis of the outer needle cannula, between

a non-binding orientation whereby the outer needle cannula is slidable relative to the binding

member and a binding orientation whereby the binding surfaces engage the outer needle cannula

to prevent slidable movement of the outer needle cannula in the extended position of the shield.

25. (Currently Amended) A medical needle shield apparatus as recited in claim 23,

wherein the shield includes a housing that defines at least one blocking member extending from

an interior surface thereof, the binding member including an aperture plate being axially movable

for engagement with the at least one blocking member that causes inclination rotation of the

binding member to a binding orientation.

26. (Original) A medical needle shield apparatus as recited in claim 23, wherein the

shield includes a probe guide at a distal end thereof configured for receipt of a probe, the probe

being configured for slidable movement with the outer needle cannula.

27. (Currently Amended) A medical needle shield apparatus comprising:

a needle hub having an outer needle cannula extending therefrom to a distal end, an inner

needle being disposed for slidable movement with the outer needle cannula, a handle being

attached to the inner needle; and

a shield being releasably mountable to the needle hub and extensible from a retracted

position to an extended position to enclose a distal end of the inner needle, the handle being

disposed adjacent the shield,

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the shield including a binding member disposed within the shield and comprising

defining binding surfaces that define form an aperture configured for slidable receipt of the inner

needle between the retracted position and the extended position,

the binding member further comprising a needle communicating surface extending

therefrom such that the needle communicating surface is engageable with the inner needle to

prevent inclination of the binding member while the needle communicating surface is engaged

with the inner needle, a retainer for releasable engagement with a hub slot of the needle hub, and

a binding member reset surface aligned for engagement with a hub reset surface, and

the binding member <u>further comprising</u> including at least one drag inducing member such

that the at least one drag inducing member engages the inner needle during slidable receipt of the

inner needle to create a drag force with the inner needle, the drag force and shield facilitating

inclination rotation of the binding member relative to a longitudinal axis of the inner needle once

the needle communicating surface extends beyond the distal end of the inner needle such that the

binding surfaces engage the inner needle to prevent slidable movement of the inner needle in the

extended position of the shield., and

the binding member further including a needle communicating surface extending

therefrom such that the needle communicating surface is engageable with the inner needle to

prevent rotation of the binding member, a retainer for releasable engagement with a hub slot of

the needle hub, and a binding member reset surface aligned for engagement with a hub reset

surface.

28. (Original) A medical needle shield apparatus as recited in claim 27, wherein the

binding member is rotatable, relative to a longitudinal axis of the inner needle, between a non-

binding orientation whereby the inner needle is slidable relative to the binding member and a

binding orientation whereby the binding surfaces engage the inner needle to prevent slidable

movement of the inner needle in the extended position of the shield.

29. (Currently Amended) A medical needle shield apparatus as recited in claim 27,

wherein the shield includes a housing that defines at least one blocking member extending from

an interior surface thereof, the binding member including an aperture plate being axially movable

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for engagement with the at least one blocking member that causes inclination rotation of the

binding member to a binding orientation.

30. (Original) A medical needle shield apparatus as recited in claim 27, further

comprising a luer slip or luer lock attachment feature.

31. (Original) A medical needle shield apparatus as recited in claim 27, further

comprising a flash chamber in communication with the inner needle, the flash chamber having a

fitting that facilitates connection to a medical device.

32. (Original) A medical needle shield apparatus comprising:

a needle hub having a needle cannula extending therefrom to a distal end;

at least one shield being extensible from a retracted position to an extended position to

enclose a distal end of the needle cannula; and

a depth stop device slidably disposed on the needle cannula, said at least one shield being

substantially disposed within said depth stop device.

33. (Original) A medical needle shield apparatus comprising:

a needle hub having an outer needle cannula extending therefrom to a distal end, an inner

needle being disposed for slidable movement with the outer needle cannula; and

at least one shield being extensible from a retracted position to an extended position to

enclose a distal end of the inner needle,

the needle shield further including a reset surface aligned with a hub reset surface for

engagement therewith to allow reuse of the shield in a shielded configuration.